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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,710	12/04/2003	Yoshie Iwakura	60419 (48882)	9935
21874	7590	12/15/2004	EXAMINER	
EDWARDS & ANGELL, LLP			CRENSHAW, MARVIN P	
P.O. BOX 55874			ART UNIT	
BOSTON, MA 02205			PAPER NUMBER	
			2854	

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/728,710

Applicant(s)

IWAKURA ET AL.

Examiner

Marvin P. Crenshaw

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 18 - 23 is/are rejected.
- 7) ☒ Claim(s) 2 - 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/04/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/04/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claims 11 and 14 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claims cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 18 – 23 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: method steps for a paper transport apparatus for transporting one or more sheets of paper.

Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. What applicant has claimed with respect to applying a voltage to the image carrier or carriers and the pressure rollers is not understandable to the examiner.

Allowable Subject Matter

Claims 2 – 10, 12, 13 and 15 - 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

With respect to claim 2, the prior art does not teach or render obvious the total combination as claimed including a paper transport apparatus wherein at least one of the pressure roller pair or pairs comprises one or more drive rollers and one or more idler rollers at least one of the drive roller or rollers comprises at least one metal roller and at least one of the idler roller or rollers comprises at least one electrically conductive elastic roller.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsumura.

With respect to claim 1 and 18, Matsumura teaches a paper transport apparatus and method (Fig. 2) comprising one or more image carriers carrying toner (13) one or more transfer means (57), rotating and coming in contact with at least one of the image carrier or carriers, for causing one or more toner images formed on at least one of the

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image carrier or carriers to be electrostatically relocated onto one or more sheets of paper and one or more paper transport means (63) disposed upstream in one or more transport directions from at least one of the transfer means and comprising one or more pairs of pressure rollers (See Fig. 2, rollers arranged in 64) holding one or more lead edge portion or portions of at least one of the sheet or sheets of paper in one or more nips formed there between and rotating so as to cause transport of same, at least one of the paper transport means (Fig. 2, 64) being disposed to the side, on which at least one of the image carrier or carriers is present of a plane more or less tangent (Fig. 2) to at least one nip formed between at least one of the image carrier or carriers and at least one of the transfer means and at least one of the sheet or sheets of paper being transported from at least one of the paper transport means toward at least one of the transfer means.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 19 – 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumura in view of Toyama et al.

Matsumura teaches all that is claimed, as discussed in the above rejection of claims 1 and 18, except a paper transport method wherein one or more voltages is applied to the image carrier or carriers and the one or more pressure rollers.

Toyama et al. teaches a paper transport method (Fig. 1) wherein as a result of application of one or more voltages (See col. 11, lines 20 - 41), timed in prescribed fashion and opposite in polarity to at least one electrostatic potential of at least one of the image carrier or carriers, to one or more pressure rollers (See col. 11, lines 20 - 41), of one or more paper transport means disposed upstream in one or more transport directions from at least one of the image forming means, one or more voltages (See col. 26, lines 4 - 15) is or are applied to only lead edge portion or portions of at least one of the transported sheet or sheets of paper in transporting same to at least one of the image forming means, at least one length of at least one of the paper lead edge portion or portions at which voltage is applied is not so long as to substantially affect information contained in at least one image formed on at least one of the image carrier or carriers (See col. 11, 43 - 54), wherein at least one of the applied voltage or voltages is varied in accordance with difference in thickness attributable to type of transported paper, being increased with increasing thickness of the paper (See col. 11, lines 20 - 30), wherein at least one absolute value of at least one maximum applied voltage is less than at least one absolute value of at least one surface potential to which at least one of the image carrier or carriers is charged (See col. 29, lines 1 - 16) and at least one absolute value of at least one maximum applied voltage is approximately equal to at least one absolute value of at least one development bias voltage which when applied

to at least one of the transfer means would cause at least one latent electrostatic image on at least one of the image carrier or carriers to become manifest (See col. 25, lines 11 - 30).


It would have been obvious to one of ordinary skill in the art to modify Matsumura to have a paper transport method wherein one or more voltages is applied to the image carrier or carriers and the one or more pressure rollers as taught by Toyama et al. so as to provide an efficient means for applying a charge to the paper while it is being transported through the printer so the toner particles will adhere to the paper and the image will not be distorted.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marvin P. Crenshaw whose telephone number is (571) 272-2158. The examiner can normally be reached on Monday - Thursday 7:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



MPC

December 13, 2004



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